

09/857,539

'HOME' ENTERED AT 10:27:23 ON 15 JAN 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS' ENTERED AT 10:30:56 ON 15 JAN 2004
L1 6124 S (CRYPTOSPORIDIUM PARVUM) AND OOCYST OR SPOROZOITE
L2 1471 S L1 (P) ANTIBODY
L3 107764 S L1 AND MONOCLONAL OR POLYCLONAL
L4 881 S L1 AND (MONOCLONAL OR POLYCLONAL)
L5 2 S L4 AND (CRL-12604 OR CP7)
L6 1 DUP REM L5 (1 DUPLICATE REMOVED)

=>

1/13/04

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L4 ANSWER 1 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:153058 BIOSIS
DN PREV200100153058
TI Immunoassay for viable **Cryptosporidium parvum** oocysts
in turbid environmental water samples.
AU Call, Jeffrey L. [Reprint author]; Arrowood, Michael; Xie, Long-Ti;
Hancock, Kathy; Tsang, Victor C. W.
CS Biotechnology Center, Utah State University, Logan, UT, 84322, USA
SO Journal of Parasitology, (February, 2001) Vol. 87, No. 1, pp. 203-210.
print.
CODEN: JOPAA2. ISSN: 0022-3395.
DT Article
LA English
ED Entered STN: 28 Mar 2001
Last Updated on STN: 15 Feb 2002
AB **Cryptosporidium parvum** oocysts in drinking water have
been implicated in outbreaks of diarrheal disease. Current methods for
monitoring environmental exposures to *C. parvum* only account for total
number of oocysts without regard for the viability of the parasite.
Measurement of oocyst viability, as indicated by an oocyst's ability to
excyst, is useful because over time oocysts lose the ability to excyst
and become noninfective. Thus, correlating the number of viable oocysts in
drinking water with incidence and risk for disease should be more
reliable than using the total number of oocysts. We have developed a quantitative
assay capable of detecting low numbers of excystable,
sporozoite-releasing *C. parvum* oocysts in turbid water samples. **Monoclonal** (CP7) and
polyclonal antibodies have been developed against a sporozoite
antigen released only during excystation or when the oocyst is
mechanically disrupted. CP7 is specific for *C. parvum* and does not react
with *C. baileyi*, *C. muris*, *C. serpentis*, *Giardia* spp., *Eimeria* spp., or *E.*
nieschulzi. In this assay, oocysts in the test sample are first excysted
and then centrifuged. The **soluble** sporozoite **antigen**
is captured by CP7 attached to a magnetic bead. The captured
antigen is then detected by ruthenium-labeled polyclonal
antibodies via electrochemiluminescence. The CP7 viability assay can
detect as few as 50 viable oocysts in a 1-ml assay sample with a
turbidity as high as 200 Nephelometric turbidity units. This sensitive,
turbidity-tolerant assay for oocyst viability may permit a better
assessment of the disease risk associated with the presence of
environmental oocysts.

L4 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:453919 BIOSIS
DN PREV2000000453919
TI An immunoglobulin G1 **monoclonal** antibody highly specific to the
wall of *Cryptosporidium* oocysts.
AU Weir, C. [Reprint author]; Vesey, G.; Slade, M.; Ferrari, B.; Veal, D.
A.;

1/13/04